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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/138,146	08/21/1998	MATTHEW BRETT BAILLIE	2-2	3730

27964 7590 11/07/2003

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EXAMINER

CLARK, SHEILA V

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/138,146

Applicant(s)
Baillie et al

Examiner
Sheila V. Clark

Art Unit
2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 29, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above, claim(s) 8-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 21-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 7, 21, 23, 24, 25, 27, 28 are rejected under 35 U.S.C. 102 (b) as being anticipated by MC Shane et al.

McShane et al shows a carrier having a base 40. An inner and outer wells formed by through holes 34 are shown formed along the a length of the periphery of the base. The inner well is shown along the a length of the periphery of the base has an outer wall coupled to the inner wall of the outer well. The outer well is shown extending along the length of the periphery of the inner well. And a chip 52 is shown positioned on the base and is deemed to be removable by removing means well know in the art. The wells of McShane are shown to have an upper surface and the distance features recited in claim 4. Figure 1 shows said through hole wells to encircle the base. The base is shown with a surface for holding a chip 52 and therefore a carrier carrier. Chips will be eventually be replaced by other chips and so are therefore temporarily mounted. Said wells are shown to be distinct and separate and therefore discontinuous.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over McShane et al.

McShane discloses that the wells may be formed of dielectric and metal materials and the lack of a description of particular materials is deemed to suggest use of conventional materials. Conventional materials well known in this technology used in circuit board structures would include such materials as polyimides and flexible metals such as copper and aluminum. Metal and substrate thickness would also determine the level of flexibility of said structure. As the claim provides no specifics that characterize flexible it is deemed that McShane teaches obvious use of flexible materials for the reasons mentioned above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 6 and 7 rejected under 35 U.S.C. 102(b) as being anticipated by Budde.

Budde shows a base 5. An inner and outer wells 11 are shown formed about the periphery of the base. The inner well has an outer wall coupled to the inner wall of the outer well. And a chip 3 is shown positioned on the base. Said wells are shown to be formed of a continuous material of metal and said wells are also shown to be distinct and separate and therefore discontinuous.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Budde.

Budde discloses that the wells may be formed of metal materials (i.e. copper and aluminum) that have flexible characteristics shown by the bendability of the bended structure. Metal and substrate thickness would also determine the level of flexibility of said structure. As the claim provides no specifics that characterize flexible it is deemed that Budde teaches obvious use of flexible materials for the reasons mentioned above.

Claims 22, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over McShane et al.

The teaching of McShane relative the features of the claims from which claims 22 and 26 depend have been addressed above except for the carrier teaching relative to a plurality of devices are deemed to be applicable to a plurality of carrier devices. The package teachings of McShane though performed using a single package as an example does not limit said teachings to a single IC carrier style or package orientation. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a plurality of integrated circuit carriers. The ordinary artisan would have motivated to modify prior the carrier of McShane because carrier devices are often created as a plurality of carriers and then may be cut into single

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or plural structures and the teachings of McShane are performed using a single carrier as an example but may be applied to single or plural groupings as design modification dictate.

Claims 1-7 and 21-28 are rejected.

Walther, Yen and Ohashi are cited to show chip carrier bases with wells.

Applicant's invention is deemed to possess allowable subject matter but fails to recite structure relative to such. The Examiner suggested features in the interview of June 13, 2001 that would lend themselves to further consideration for allowance. Applicant choice not to incorporate said features into the amended claims. The claims as they are currently recited fail to connect the wells structurally as part of the base. As the claims are currently recited, the wells can be structure that is exterior to the base and disconnected therefrom. Only a base is claimed and inner wells about the periphery but nothing that requires the wells to be part of the base. Other, more specific structural language is also suggested.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

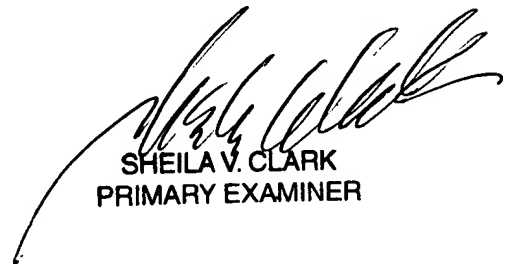
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Examiner S.V. Clark at telephone number (703) 308-4924.

October 30, 2003



SHEILA V. CLARK
PRIMARY EXAMINER